

REMARKS

Reconsideration of the pending application is respectfully requested on the basis of the following particulars:

Rejection of claims 1-6, 8, 10 and 12-20 under 35 U.S.C. § 103(a)

Claims 1, 3, 4 and 12-20 presently stand rejected as being unpatentable over Boucherie (U.S. 5,728,408, hereafter Boucherie '408). This rejection is respectfully traversed for at least the following reasons.

Claim 1 is amended to set forth that fibers are subjected to an end grinding process, and that during the end grinding process the fibers and the processing equipment are mutually put into contact while the fibers are being held loosely together, wherein none of the fibers are clamped or fixed and wherein free ends opposite said far ends rest on an underlying support during the end grinding process.

Support for the amendments to claim 1 is found at least at lines 1-3 of page 2, and in the first paragraph of page 7 of the original specification.

It is respectfully submitted that Boucherie '408 fails to disclose or suggest that fibers and a processing equipment are mutually put into contact while the fibers are being held loosely together, wherein none of the fibers are clamped or fixed, and wherein free ends opposite said far ends rest on an underlying support, as is required by claim 1.

Notably, the examiner recognizes that Boucherie '408 "*is silent*" with regards to how the fibers are held" (at page 3 of the recent Office action) (emphasis added).

Because Boucherie '408 "is silent with regards to how the fibers are held" (*Id*), Boucherie cannot be construed to disclose or suggest each and every element of the presently claimed invention, since claim 1 clearly recites that, during a processing step, the fibers are *held loosely together*, wherein *none of the fibers are clamped or fixed*, and wherein free ends opposite the far ends rest on an underlying support.

Boucherie '408 discloses a device, shown in FIG. 9, which "comprises a step-wise rotating disk 80 which has a number of circumferentially spaced bristle accommodation pockets 82 in its peripheral surface. A raw fibre supply station 84 is provided at a first position around the disk 80 to supply a bundle of raw fibres to each of the pockets 82 passing in front of the fibre supply." (*Boucherie '408*; col. 7, lines 15-20). While the examiner refers to the raw fibre supply station 84 as a "brush body," as recited in claim 1, Applicant notes that the raw fibre supply station 84 is clearly not a brush body.

Boucherie '408 further describes that "[b]y step-wise rotation of the disk 80, bundles of fibres contained in the pockets 82 are indexed to a number of processing stations 86 where the free ends of the fibres are subjected to a grinding operation to rounden the fibre ends. The processing stations 86 are followed by one or more processing stations 88 which are fibre end polishing stations. Finally, bundles with finished bristle fibres are delivered to a collecting station 90 where a bristle container 51 is refilled from its upper, open side, the pressure block 58 (FIG. 2) having been removed." (*Boucherie '408*; col. 7, lines 21-30).

Thus, it can be recognized that fiber bundles are filled into pockets 82 of the disk 80 (and not provided in a brush body, as claimed), and transferred from station-to station for the various processing operations.

While the examiner asserts that "it is clear that the fibers are loaded into a pocket in the disk," and that the "pocket is an opening in the disk and neither the pocket nor the disk comprise a clamping device located thereon since the fibers are passed easily from the stock to disk and then from the disk to the return cartridge," (page 3 of the recent Office action), Boucherie '408 is nonetheless silent, not only with regards to how the fibers are held as the examiner has acknowledged, but more particularly with regard to how fibers are handled during any of the processing operations. Applicant respectfully submits that the *silence* of Boucherie '408 with regard to how fibers are held simply cannot be construed as providing any teaching or suggestion with regards to how the fibers are held.

More particularly, Boucherie '408 is entirely silent as to how the fibers are handled during the end grinding and polishing operations. Even assuming, arguendo, that "[t]he use of a clamping device is not necessary since the fibers are transferred easily between the stock cartridge, the disk and the return cartridge" as the examiner asserts (at page 3 of the recent Office action), this addresses only the transfer of fibers into and out of the device shown in FIG. 9, and does not offer any teaching or suggestion as to how the fibers are handled during the end grinding and polishing operations.

Moreover, as noted above, the raw fibre supply station 84 is not a brush body. Further, none of the disk 80, pockets 82, processing station 86, processing station 88, or any other part of the device of FIG. 9, is a brush body.

Claim 1 is amended, as noted above, to more particularly point out that fibers and the processing equipment are mutually put into contact while the fibers are being held loosely together, wherein none of the fibers are clamped or fixed, and wherein free ends opposite said far ends rest on an underlying support during an end grinding process.

Boucherie '408 is silent as to how the fibers are held at any time. While the examiner has asserted that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to use Boucherie's apparatus without a clamping device since the fibers are supported alone within the disk (80)" (at page 3 of the Office action), this is contradicted by the examiner's own assertion that Boucherie '408 "is silent with regards to how the fibers are held."

Further at odds with the examiner's assertion that it would have been obvious to use Boucherie's apparatus without a clamping device is the examiner's assertion that "pockets 82 in the disk *act as the clamping means* by holding the fibers stationary within the pocket" (at page 3 of the Office action) (emphasis added). Claim 1 requires that *none of the fibers are clamped* or fixed.

Moreover, even assuming, arguendo, that it would have been obvious for fibers to be held loosely together, not clamped or fixed, for transfer between the stock cartridge, the disk, and the return cartridge, it does not follow that it would have been obvious for the

fibers to be held loosely together during an end grinding process. Further still, there is no teaching or suggestion that the fibers are provided in a brush body at any point or for any reason during transfer between the stock cartridge, the disk, and the return cartridge.

Applicant respectfully submits that while Boucherie '408 is silent with regards to how the fibers are held during an end grinding process, persons of ordinary skill in the art would determine, in view of additional references cited in the Office action, that the fibers would be securely clamped as taught by the Zahoransky patent (U.S. 5,431,484) which describes an end grinding process.

For example, claims 2, 5, 6, 8 and 10 are rejected as unpatentable over Boucherie '408 in view of Zahoransky. However, Zahoransky describes an end grinding process and notes specifically that a "***clamping grip 8***, which is connected with a reciprocating cylinder 9, can take hold of the bristle strands and ***clamp them securely***, and the bristle strand ends ***can then*** be conveyed to the grinding device 6 by means of a displacement of the entire forward feed device 7." (Zahoransky; col. 3, line 66 – col. 4, line 3) (emphasis added).

Thus, while Boucherie '408 is silent with regards to how the fibers are held, Zahoransky specifically teaches that the fibers are ***clamped securely*** for grinding. Therefore, considering these references together, persons of ordinary skill in the art would follow the teachings of Zahoransky and securely clamp fibers for an end grinding operation, since Boucherie '408 does not provide any guidance as to how an end grinding process is to be performed.

Because Boucherie '408 is silent with regards to how the fibers are held during an end grinding process, and Zahoransky discloses that the fibers are ***clamped securely*** for grinding, these references taken together teach away from the presently claimed invention wherein fibers are loosely held and neither clamped nor fixed during an end grinding process.

For at least these reasons, it is respectfully submitted that Boucherie '408 fails to form a prima facie case of obviousness of any of claims 1-6, 8, 10 and 12-20 since

Boucherie '408 does not disclose or suggest each and every element of claim 1, while Boucherie '408 and Zahoransky fail to form a prima facie case of obviousness of any of claims 2, 5, 6, 8 and 10 since Boucherie '408 and Zahoransky together fail to disclose or suggest each and every element of claim 1, and instead teach away from the invention of claim 1.

Therefore, it is respectfully submitted that claims 1-20 are allowable over the cited references, and withdrawal of these rejections is requested.

Double patenting

Claim 1 presently stands rejected on the ground of nonstatutory obviousness-type double patenting, as being unpatentable over claim 1 of U.S. 6,837,548, claim 1 of U.S. 6,406,099, claims 1, 3-5, and 8 of U.S. 6,702,394, and claims 1 and 2 of U.S. 6,372,163, each in view of Boucherie '408. Further, claim 1 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting, as being unpatentable over claim 1 of co-pending application 10/989,272 in view of Boucherie '408. These rejections are respectfully traversed for at least the following reasons.

The examiner has acknowledged that each of 6,837,548, 6,406,099, 6,702,394, 6,372,163, and 10/989,272 fails to teach that "the fibers are held loosely in the brush body." It is respectfully submitted, moreover, that none of these references teaches or suggests a method wherein during an "***end grinding process***, the fibers and the processing equipment are mutually put into contact ***while the fibers are being held loosely together, wherein none of the fibers are clamped or fixed***" as required by claim 1.

As described above, Boucherie '408, which "is silent with regards to how the fibers are held" as the examiner recognizes, cannot be construed to disclose or suggest that fibers are loosely held during an end grinding process.

Therefore, none of 6,837,548, 6,406,099, 6,702,394, and 6,372,163, in combination with Boucherie '408, form a prima facie case of obviousness of the present invention, and accordingly withdrawal of these rejections is requested.

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Conclusion

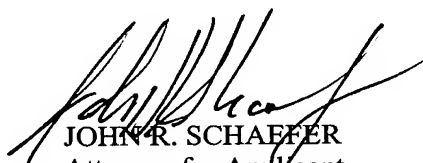
In view of the amendments to the claims, and in further view of the foregoing remarks, it is respectfully submitted that the application is in condition for allowance. Accordingly, it is requested that claims 1-20 be allowed and the application be passed to issue.

If any issues remain that may be resolved by a telephone or facsimile communication with the Applicant's attorney, the Examiner is invited to contact the undersigned at the numbers shown.

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Respectfully submitted,



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